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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,006	10/13/2000	Elizabeth Sisley	1142.001US1	9173

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EXAMINER

ROSALES HANNER, MORELLA I

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/688,006

Applicant(s)

SISLEY, ELIZABETH

Examiner

Morella I Rosales-Hanner

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/13/2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1 - 3 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _____ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Office Action

1. **Claims 1 – 3** have been examined and are pending.

Priority

2. The office acknowledges applicant's claim for domestic priority under 35 U.S.C. § 119(e) from United States provisional application 60/159,240 filed on **October 13, 1999**.

Drawings

3. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.
4. **Figure 1** should be designated by a legend such as **--Prior Art--** because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

- a. It appears that the figure cited on page 19, line 8 should be FIG 5 instead of FIG 4;
- b. In page 37 [lines 21 – 24] the following elements of FIG 4 are cited: F_n, A_n, B_n, and D_n. It appears that these elements should be cited as F₁ to F₄, A₁ to A₄, B₁ to B₃ and D₁ to D₃;
- c. Page 44, line 4 recites “...**system’s configuration by populates a generic...**”. It appears that this statement should be either:

“...**system’s configuration by populating a generic...**”

or

“...**system’s configuration populates a generic...**”

Appropriate correction is required.

6. The use of various trademarks has been noted in this application [pgs 10 & 12].

Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology along with specific version/model when referring to software/hardware. For example, in page 12, line 20, the disclosure cites Windows® 95, Windows® 98, Windows® NT, and Windows® 2000 instead of WINDOWS® 95, WINDOWS ® 98, WINDOWS ® NT, and WINDOWS ® 2000. The disclosure also fails

to provide the generic terminology associated with these trademarks along with specific version numbers.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.1 **Claim 1** recites the limitation "**the preallocated data and code partitioning**" in line 8.

There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.1 **Claims 1 – 3** are rejected under 35 U.S.C. 102(b) as being clearly anticipated by a printed publication from Hassan Gomaa titled “Structuring and Configuring Distributed Applications”, hereafter referred to as *Gomaa*.

8.1.1 Regarding **claim 1**, this claim is drawn to a computerized method of determining an allocation of software and data components in a distributed system comprising:

- modeling a target system, the system having a plurality of computing resources;
- determining a set of couplings in the target system;
- prepartitioning the set of couplings;
- preallocating each coupling in the set of couplings to one of the plurality of computing resources;
- interleaving the preallocated data and code partitioning; **and**

- defining a set of components according to the interleaved and preallocated couplings, the components having a data and a code segment; and determining a modularity of the set of components.

Gomaa teaches [Pg 193, Abstract] an automated method for determining the configuration (software and data components) in a distributed system comprising the steps of:

- domain modeling to develop an architecture for a family of systems (target system) [pg 18, section 1, 2nd paragraph];
- generating a target system configuration which instantiates the target system components (prepartitioning), interconnecting them (determining a set of couplings) and mapping them onto a hardware configuration (preallocation of couplings to computer resources) [pg 18, section 1, 4th paragraph]; and
- applying subsystem configuration criteria to decide how to allocate systems to distributed nodes (computing resources) based on proximity to the source of physical data (interleaving preallocated data and code partitioning), localized autonomy, performance, specialized hardware (computing resource), user interface, and server node [pg 22, section 5.2].

8.1.2 Regarding **claim 2**, this claim is drawn to determining a computer hardware resource based on the determination of the modularity; and interleaving the data and the code segment of each of the components.

Gomaa teaches [pg 22, section 5.2, items (4) and (6)] applying subsystem configuration criteria to decide how to allocate systems to distributed nodes (computing resources) based on specialized hardware and functional needs.

8.1.3 Regarding **claim 3**, this claim is drawn to assigning each component of the set of components to a computer hardware resource based on the determination of the modularity; and interleaving the data and the code segment of each of the components.

Gomaa teaches [pg 22, section 5.2,] applying subsystem configuration criteria to decide how to allocate systems to distributed nodes (computing resources) based on proximity to the source of physical data (interleaving preallocated data and code partitioning), localized autonomy, performance, specialized hardware (computing resource), user interface, and server node.

Additional Information

9. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Gomaa, H.; Farrukh, G.A; "Automated configuration of distributed applications from reusable software architectures" Automated Software Engineering, 1-5 Nov. 1997, Pgs:193 – 200.
- Gomaa, H.; Farrukh, G.A.; "Methods and tools for the automated configuration of distributed applications from reusable software architectures and components", Software, IEE Proceedings- [see also Software Engineering, IEE Proceedings], Volume: 146 , Issue: 6 , Dec. 1999, Pages:277 – 290.
- Morzenti, A.; Pietro, P.S.; Morasca, S.; "A tool for automated system analysis based on modular specifications", Oct 1998 Page(s): 2-11
- Jelly, I.E.; Gorton, I.; Burkhart, H.; Decker, K.M.; Fekete, A.; Potter, J.M.; Gomaa, H.; Kramer, J.; Schmidt, D.C.; Stankovic, J.A.; "Software engineering for parallel and Distributed Systems" IEEE Concurrency, IEEE [see also IEEE Parallel & Distributed Technology], Volume: 5, Issue: 3, July-Sept. 1997, Pgs:16 – 27.
- Magee, J.; Kramer, J.; Sloman, M.; "Constructing distributed systems in Conic", Software Engineering, IEEE Transactions on, Volume: 15, Issue: 6, Jun 1989, Pgs:663 – 675.

Art Unit: 2128

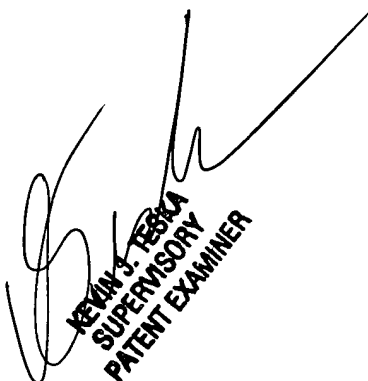
10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Morella Rosales-Hanner whose telephone number is (703) 305-8883. The examiner can normally be reached Monday-Friday from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MRH

May. 24, 2004



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER